Prince George Timber Supply Area
Timber Supply Review

Summary of Public Input

BC Ministry of Forests

Prince George Forest Region
1011 Fourth Avenue
Prince George, BC V2L 3H9

Prince George Forest District
2000 S. Ospika Blvd.
Prince George, BC V2N 4W5

Fort St. James Forest District
Box 100
Fort St. James, BC V0J 1PO

Vanderhoof Forest District
Box 190
Vanderhoof, BC V0J 3A0

May, 2002

This is a summary of the public input received on the Timber Supply Review in the Prince George Timber Supply Area. This summary does not assess the feasibility or validity of the input or whether it relates to the clearly defined mandate of the chief forester in the allowable annual cut determination.

104-01771/

Prince George Timber Supply Area

Background

As part of the review of timber supply in the Prince George Timber Supply Area (TSA), three opportunities were provided for public input. The first followed release of the Prince George TSA *Data Package* and *Information Report* in December 1998. The *Information Report* was a non-technical summary of the draft data and management assumptions that were to be applied in reviewing the timber supply for the Prince George TSA. A 30-day review period, ending January 22, 1999, was provided for the public to comment on these documents.

On October 4, 2001, the British Columbia Forest Service released the *2001 Prince George Timber Supply Area Analysis Report* and *Public Discussion Paper*. The public was encouraged to review and comment on the accuracy of the information in these documents and to provide additional information during the 60-day review period that ended December 3, 2001.

Further to these review periods, on February 28, 2002, the chief forester announced that due to new information about the rapid spread of the mountain pine beetle (MPB) infestation, a temporary allowable annual cut (AAC) in the Prince George TSA was being proposed. Therefore, a second *Public Discussion Paper* was released to provide information about a proposed temporary AAC increase due to MPBs and the public was encouraged to provide comment during the 30-day review period that ended April 3, 2002.

This report summarizes the input received during all three public review periods. This information was provided to the chief forester for his consideration when he reviewed the AAC for the Prince George TSA. The first section of this summary outlines the public review process implemented by the Forest Service, and describes the types of public input received. The second section summarizes the public input in sufficient detail to indicate the range of input received. The original submissions (with personal identifiers removed in accordance with the *Freedom of Information and Protection of Privacy Act*) can be reviewed at the Prince George Forest Region office in Prince George.

Public Review Process and Response

Staff from the three forest districts in the TSA, as well as Prince George regional staff, actively solicited public input on the Timber Supply Review in the Prince George TSA through the following actions:

- more than 850 copies of the *Data Package, Information Report, Analysis Report* and both *Public Discussion Papers* were mailed to stakeholders in the TSA, including First Nations, licensees, local governments, environmental groups, and Land and Resource Management Plan (LRMP) participants. Meetings or presentations were offered.
- the *Data Package* and *Analysis Report* were available at the three district offices and the Prince George regional office in Prince George. About 40 copies of the *Data Package* and 60 copies of the *Analysis Report* were picked up.
- newspaper advertisements were placed advising the public of the availability of the documents for review.
- copies of all the documents were made available to the local media. Interviews were conducted with the local newspaper.
- referrals were made to the Ministry of Forests website where documents were available to download.
- in January 1999, and on November 9, 2001, meetings were held in Prince George with 30 representatives of the Prince George Timber Supply Working Group, a forest industry-based group.
- on October 29, 2001, an open house was held in the Vanderhoof Forest District office. Five members of the public,

including First Nations, attended.

- on November 8, 2001, an open house was held in the Fort St. James Forest District office. No one attended.
- on November 15, 2001, a presentation was made to members of the public interested in the cedar and hemlock harvest from the Interior Cedar-Hemlock (ICH) biogeoclimatic zone of the TSA. About 25 people attended the presentation at the Prince George Forest District office, including representatives from the University of Northern British Columbia, local naturalist clubs, residents of the ICH and government.
- on November 30, 2001, a presentation was given to the Vanderhoof LRMP Monitoring Table. Approximately 50 people attended.

The forest district and regional offices received 10 written submissions on the *Data Package*, 47 submissions on the *Analysis Report* and 38 submissions on the MPB *Public Discussion Paper* (see Appendix 1).

Public Input

In this section, public input on the information presented in the Timber Supply Review documents for the Prince George TSA is summarized under the following headings:

- Data Package (and Information Report)
- Timber Supply Area Analysis Report (and first Public Discussion Paper)
- Other comments (on the above documents)
- the MPB Public Discussion Paper

Data Package

Land Base Factors

The Fraser Headwaters Alliance (the Alliance) says the timber supply analysis should be based on the outcomes of Land and Resource Management Plans (LRMPs). The group says that including in the timber harvesting land base (THLB) any areas approved for protection distorts the amount of available timber and prolongs an unsustainable rate of harvest. An individual says it is not acceptable for a timber supply impact to prevent proposed protected areas from the Vanderhoof LRMP from being established. This submission outlines the planning process and the values of the proposed protected areas, and maintains that special management does not replace protection.

The Alliance says that due to poor market conditions and projections, they expect operability lines to move downslope, making less land available for harvesting, and this should be accounted for in the analysis. The Prince George Timber Supply Working Group (the major licensees) notes that stands considered to have an average volume too low to support the higher costs of specialized equipment were designated inoperable. They say this criterion has changed as equipment has been modified, making more areas of low volume economically operable.

Environmentally Sensitive Areas

The submission from the major licensees says that exclusions made in the past through Environmentally Sensitive Area (ESA) designations may have overlapped with other netdowns, and notes that new site specific data has been gathered since 1995 to identify areas for protection or constrained management. The major licensees recommend that ESA netdowns for sensitive soils, recreation and wildlife be dropped entirely or partially, and that any area with a sensitive designation that has had harvesting be included in the THLB.

Deciduous Forest Types

The major licensees note that deciduous–leading stands do not contribute to the THLB in the *Data Package* assumptions. They say that since the majority are aspen stands that are resilient and resist catastrophic disturbances, it is reasonable to assume they will succeed over time to conifer-leading. The major licensees recommend that 50 percent of aspen-conifer

stands at age 120 years be converted to conifer-leading stands aged 80 years.

Roads, Trails and Landings
The major licensees say that the reductions in the *Data Package* for roads, trails and landings (RTLs) reflect road construction practices of the 1970s and 1980s. They say in the 1990s, roadside logging, road rehabilitation, and varying road and right-of-way widths reduced the loss to RTLs. The major licensees provide lower recommended reductions for RTLs.

Forest Inventory
Plateau Forest Products expresses concern about the use of the Prince George Forest District spruce audit, saying the results are based on inadequate sampling. The company says more diverse sampling is needed to provide statistically accurate results before this information is used in a Timber Supply Review.

Cedar-Hemlock Stands
The Alliance says significant old-growth cedar forests are being 'liquidated' in the Robson Valley for minimal economic benefit to operators, and virtually none to BC taxpayers and residents. An individual submission also expresses concern with the disappearance of cedar-hemlock forests, saying the remaining stands represent the northern extent of this ecosystem and they are extremely rich in biodiversity. This submission makes the following points:

- the rate of cut should be sustainable so future generations can also harvest old-growth cedars and firs which will only increase in value.
- these stands rarely have stand-initiating events and should never be clear cut.
- cedars affected by the hemlock looper will stand for decades and provide shelter for a regenerating forest and for old-growth dependent species.
- evidence indicates that the severity of the looper epidemic was caused by adjacent large openings, and clearcutting may set off another epidemic.

Expected Rate of Growth
The submission from BC Environment says the use of genetically improved seed is resulting in a loss of natural genetic variability in forest stands, which they see as very undesirable from an ecological and biodiversity perspective. The agency says that before improved seed is used more extensively, the implications should be seriously examined.

The major licensees say that superior stock and genetically-improved spruce seedlings are being widely used, and genetically-improved pine is forthcoming and will be used. They recommend:

- a 15 percent increase to the site index of 90 percent of current and future spruce plantations.
- a sensitivity analysis on the anticipated 10 percent increase in the site index for 90 percent of future pine plantations.

The major licensees say that site index is a reflection of an age/height relationship and since the land base is generally over-mature, the age continues to increase while height does not change significantly. They say the results of research to correct this problem, although incomplete, should be used in the timber supply analysis. Details are provided.

Regenerated Stand Volumes
The major licensees express concern about the use of a 15 percent reduction factor (operational adjustment factor, or OAF1) to estimate the area of openings within a stand. They say this overestimates the openings in stands planted under controlled conditions, and they request time to complete a survey to determine a more realistic percentage.

Regeneration Factors
The Alliance expresses concern with the regeneration delay used in the *Data Package* and questions whether several plantation failures that required replanting were accounted

for. More importantly, the group says, the uncertainty over future climate conditions means there will be difficulty predicting suitable species, time lags for natural establishment, and probably large scale plantation failures. Therefore, the Alliance says the base case should allow for a considerably longer regeneration delay and a sensitivity analysis should examine an even longer delay.

The major licensees question the logic for the not satisfactorily restocked (NSR) add–backs to the forested land base. To increase the THLB by 21,000 hectares and return previously harvested areas back to conifer-leading stands, they recommend:

- adding all previously harvested areas back into the commercial land base.
- the ministry apply for funding to locate, prepare a prescription for, and reforest to conifer-leading any area that was previously harvested and is not currently considered part of the THLB.
- adding all recently harvested areas back as conifer-leading types (not as aspen-leading, which is only a temporary condition).

Utilization Standards

Plateau Forest Products suggests that if downward pressure on timber supply is evident, a sensitivity analysis could be done to identify the benefit of reducing current utilization standards for all coniferous species (except pine in specified supply blocks) to a 15.0-centimetre diameter. The company says they understand this could increase timber supply by as much as four percent.

The Alliance expresses concern that actual volumes from mature cedar-hemlock stands are overestimated, saying it is their experience that considerably less wood is delivered to mills than is cruised on the stump.

Visual Quality

An individual submission says the analysis should pay attention to the guidelines of the Prince George LRMP regarding visual sensitivity in all mountainous areas (not just near lakes and highways).

The major licensees recommend that the analysis model the maximum allowable disturbance for each Visual Quality Objective (VQO) class, noting that better block and visual landscape design and Visual Impact Assessments are being used. The major licensees say they support the two percent buy–back on visual impacts suggested by the chief forester and therefore recommend the maximum allowable disturbance be increased by two percent in each VQO category. In addition, the major licensees recommend the use of slope to calibrate green-up heights (taller height required on steep slopes and shorter on flat areas).

Recreation and Cultural Features

The major licensees say reductions to the THLB for heritage trails may be unnecessary as cutblocks have been proposed, approved and harvested in these areas with little impact. They recommend the corridor for Heritage Trails be dropped.

Riparian Management

The major licensees express the opinion that riparian reductions have been overestimated due to stream designations being conservative, some classification being done prior to new stream guidelines, and double counting with other netdowns. They recommend further study prior to final determination of the reduction factors.

Biodiversity

The major licensees say the *Data Package* identifies an average 3.5 percent as the permanent reduction from the THLB to account for wildlife tree patches (WTPs). They recommend including all WTP areas in the THLB, but doubling them to seven percent and doubling the average rotation on them.

An individual submission says more attention must be given to understanding and

protecting the integrity of forest soils and soil organisms to ensure long-term viability of both commercial timber production and the forest biodiversity that supports other values and social/commercial opportunities.

The Alliance says it is entirely unacceptable for the base case to model an old-seral minimum retention area at less than that recommended in the *Biodiversity Guidebook*, saying this appears to be a blatant attempt to circumvent the already inadequate Forest Practices Code and inflate available timber. The group says this approach means areas of low biodiversity emphasis will be treated as lower than low for 140 years, and recommends a sensitivity analysis using immediate compliance with the guidebook-recommended seral stage distributions.

Unsalvaged Losses
The Alliance says the hemlock looper event has only happened once within human memory in the Robson Valley and is the largest known mortality of hemlock due to the looper ever recorded. The group says it is erroneous to account for it as an annual event, unless the volume loss is averaged over at least 100 years.

The major licensees note that according to the *Data Package*, annual unsalvaged losses on average have increased 39 percent since the previous Timber Supply Review (TSR1), and say this is inconsistent with ongoing efforts to target and recover dead or dying stands as part of the annual harvest. The major licensees say that with increased access, younger stands, an even age class distribution, and spatial distribution of older growth, these losses should decrease in the future. They recommend:

- using loss estimates from TSR1.
- using a five-year average of salvage (not 20-year) to better represent current practice.
- reducing losses to half the initial levels when 85 percent of the THLB has been converted to managed stands.

Crown Land Plan
The major licensees note that under this plan 60,000 hectares of what was once THLB have been identified for exclusion, mainly for agricultural use. They recommend:

- arability studies to confirm/deny the suitability of the land for agriculture.
- these areas remain in the THLB until they're scheduled for development under the plan.
- a review of past removals and the return of marginal/poor agricultural land to the THLB.

Splitting the TSA
An individual submission says that LRMP processes have changed the way forest districts are managed and the time has come for each district to have its own timber supply allocation. This individual notes that Prince George forest companies want to start logging in the Vanderhoof Forest District and expresses the opinion that this will undermine the long–term stability of the industry there.

Climate Change
The Alliance provides a document on climate change and forest management impacts, and expresses the opinion that this is a critical issue deserving of consideration in the timber supply analysis. The group suggests a sensitivity analysis be undertaken to address these impacts.

First Nations
The Tl'azt'en Nation submission says that the Ministry of Forests has failed to properly consult with, let alone compensate, the Tl'azt'en Nation for the development of their territory. They note that they are at the fourth stage of treaty negotiations and have registered their objection that continued extraction of their resources is not in accordance with the honour and good faith of the Crown. The Tl'azt'en are concerned with the rate at which the timber resources in their territory are being liquidated without their consent and without any 'impact and benefit agreement' in place. They express

concern that economic imperatives are the main driving force, and ecological and traditional/heritage values of their land and resources are being undermined.

The Tl'azt'en Nation say that information in the *Data Package* is incomplete or misleading, as follows:

- with respect to reliance on LRMP information, First Nations have not participated in the Fort St. James LRMP process and therefore their concerns regarding resource use and its impacts were not recorded or accounted for.
- they are in the process of completing a two-year traditional use study that has immediate and severe implications for resource use in their traditional territory (more than one-third of the Fort St. James Forest District), and none of this information has been integrated in the Timber Supply Review.

Socio-Economic Factors

An individual submission says that more consideration should be given to the recreation, commercial recreation and tourism opportunities in the TSA, particularly in high elevation areas where these opportunities increase while timber values decrease.

A submission from the District of Fort St. James expresses the opinion that previous socio-economic analyses are inaccurate and incomplete, and do not correctly depict the community of Fort St. James. This submission expresses concern with the adequacy of the socio-economic analysis to be used in this Timber Supply Review.

An individual submission says it is widely acknowledged that the remaining volume of timber cannot support the number of mills and processing facilities in the Prince George area. This submission expresses concern that if the chief forester considers the timber requirements of established and proposed facilities, this will mean continuation of the present unsustainable rate of cut to feed mills in Prince George at the expense of other areas, such as Vanderhoof.

Timber Supply Area Analysis Report

The vast majority of submissions commented specifically on factors relating to the cedar–hemlock forests of the Interior Cedar-Hemlock (ICH) zone. Other comments are summarized first in this section, followed by those relating to ICH forests.

Environmentally Sensitive Areas
The submission from the Prince George Timber Supply Working Group (the major licensees) says the use of ESAs may underestimate the size of the THLB due to double-counting; they recommend a review prior to the next Timber Supply Review to reduce or eliminate use of these classifications.

Deciduous Volumes
Ainsworth Lumber Co. expresses interest in securing deciduous volume for their 100 Mile House OSB plant and says their consultants' research on the location of the deciduous resource and merchantability indicates a long–term harvest level higher than that in the *Analysis Report*. The company says they believe their findings are operationally feasibly and economically viable.

Existing Forest Inventory
Noting the results of an audit that showed spruce volumes are overestimated, the major licensees say a more comprehensive study is needed before adjustments are made to the timber inventory.

Estimates of Future Growth
The major licensees make the following comments and recommendations:

- site productivity is more appropriately calculated using SIBEC (based on site characteristics), rather than age and height of the current stands. As a proxy for SIBEC information, Old Growth Site Index (OGSI) adjustments should be incorporated in the base case.
- the provincial average for OAF1 (to account for gaps within stands) is too high for the central interior; this should be reviewed before the next Timber Supply Review.
- current practice is that 50 percent of planted spruce seedlings come from Class A seed so the anticipated 18 percent increase in height and volume over trees grown from wild seed should be modeled.

An individual submission says any analysis regarding site productivity should consider an OGSI adjustment for subalpine fir (balsam) similar to that for spruce. An example from this individual's woodlot is provided.

Supply Block A
Five submissions comment on the future of the wood supply in Supply Block A. The major licensees say two Prince George companies are currently harvesting in this area and the volumes should continue to contribute to the AAC of the Prince George TSA. The major licensees recommend that a decision on the future of Supply Block A be deferred until the impacts of insect epidemics are known.

The Regional District of Kitimat-Stikine says the timber supply from Supply Block A should be transferred to the Prince Rupert Region as road networks develop in the west. The regional district says more timber would be economically viable if it were going to mills closer to it.

An individual submission acknowledges the sensitivity analysis that was done on Supply Block A and says if proposed road developments occur, pressure will increase to transfer the timber out of the Prince George TSA. The Carrier Sekani Tribal Council (the Tribal Council) questions the economics of harvesting in Supply Block A and says there is insufficient economic data to include this volume in the AAC at this time.

Another individual says Supply Block A should not be part of the timber supply because

it would be foolish to compromise the values there to permit harvesting of low value wood. The values identified include:

- economic and social benefits from managing for wilderness-based eco-tourism and recreation.
- regionally significant plant and animal populations and habitat.
- spectacular scenery.
- large tracts of wilderness where natural ecological processes can proceed, allowing for study and improved forest management in similar areas.

Unsalvaged Losses

An individual submission says the estimates of losses to insect and disease are far too small, which is reflected in the statement in the *Analysis Report* that the current mountain pine beetle epidemic was not considered.

The Tri-Community Group (representing the communities of Fort St. James, Vanderhoof and Fraser Lake) says the estimate of unsalvaged losses in the *Analysis Report* is reasonable for a 250-year period, but in the near term losses will likely be much higher due to the mountain pine beetle (MPB) epidemic. The Group says they see the loss of mature timber through unsalvaged losses as a threat to the stability of the TSA's timber supply. The Group asks how much mature timber could be lost for sawlog utilization in the next one to two decades before the AAC is affected.

Wildlife and Biodiversity

Three submissions comment on factors relating to the protection of wildlife and biodiversity. Their comments include the following:

- concern that no consideration was given to the increase in access roads due to the beetle infestation; ATV use for hunting should be prohibited on all forest access roads.
- wildlife and ecological considerations must be given priority over economic profits, as sustainable development can only be realized with an ecologically sound land base.
- the meagre seven percent of forested land outside the THLB is inadequate to protect other values such as wildlife; many species require large tracts of undisturbed, contiguous forest.
- while landscape biodiversity may be maintained under the base case scenario, THLB biodiversity will not; details from the *Analysis Report* that support this assertion are provided.
- the original forests should be given the chance to be replaced because all stages of a forest provide wildlife habitat; the closer the habitat, the sooner small species will return to a cutblock when it acquires the appropriate attributes.

Cultural Sites

The Tribal Council says completed planning documents, such as the Archaeological Impact Assessment completed in the Vanderhoof Forest District, must be reflected in all decision-making and yet the *Analysis Report* does not refer to any land base preservation resulting from the assessment.

First Nations

The Tribal Council says that while they are engaged in treaty negotiations, they cannot support the *Analysis Report*. The Council notes the document does not address the volume confirmed to be available to them for a Community Forest Pilot Agreement, under the Forestry Bridging Agreement that has been signed. The Council also says they are opposed to timber harvesting when environmental and social impacts are not considered.

Climate Change

An individual submission says the issue of climate change (as reflected in recent beetle outbreaks and in anticipated future forest health problems) must be addressed immediately and meanwhile estimates of future wood supplies should be conservative. This submission says the current management practices modeled in the analysis are setting forests up for major

health problems that will have serious impacts on future wood supplies.

Socio-Economic Factors

Four submissions comment on the socio–economic analysis. Their comments include:

- future direct employment estimates seem optimistic, considering mergers, technological advances, etc.
- the analysis of revenue impacts is deficient because it ignores reduced revenue opportunities for non-timber sectors, the effect of declining timber quality on government revenue, the associated costs of administration, infrastructure and industry grants, or the question of access to certified wood markets.
- First Nation forestry organizations and communities were not addressed in the analysis.
- what is the impact of increased harvesting of an undesirable species (balsam), with its higher harvesting and manufacturing costs, and lower revenue and stumpage.

TRC Cedar Ltd. outlines its product line and marketing strategy (primarily split rail fences and cedar mulch) which are key to its success in harvesting stands where previous operators have failed. The company says they've proven their ability to operate consistently in the ICH zone, and have created significant employment and revenue from a previously unutilized resource. TRC says these benefits must be weighed heavily against initiatives to preserve large areas of the ICH.

Regional Milling Capacity

The Tri-Community Group provides information from their analysis of milling capacity in the three forest districts contained within the Prince George TSA. They estimate the following milling capacity for MPB timber:

- under present economic conditions, 8.6 million cubic metres per year.
- under full mill production, 9.6 million cubic metres per year.
- under enhanced capacity, 11.5 million cubic metres per year.

The Group concludes that, until the present MPB epidemic is controlled, mills in the Prince George Forest District will have to process MPB timber from the Fort St. James and Vanderhoof forest districts and that additional cut will have to be transferred into these two districts. They estimate that 80 percent or more of the total AAC will be harvested in the two western forest districts. The Group expresses two concerns about this scenario:

- will the Vanderhoof and Fort St. James districts be able to support their historical harvest rates of two million cubic metres and 3.8 million cubic metres respectively, after the high rates of harvest needed to control the MPB are concluded?
- if harvest levels have to drop below the historical harvest rates after the epidemic is controlled, where will the timber come from in the TSA to support the consumption of the local sawmills?

Cedar-Hemlock Forests

Thirty-two submissions comment extensively on issues relating to the cedar-hemlock forests of the ICH zone (wet and very wet subzones) in the Robson Valley. The key points are summarized under the following topics. Some comments pertain to the base case assumptions in the *Analysis Report*, some to the revised base case presented at a public meeting on November 15, 2001, and some to presentations made at a January 28, 2002, research meeting attended by the chief forester.

<u>Ecological Significance</u>

Most submissions describe the old-growth ecosystems within the ICH zone as globally–significant inland rainforests that have unparalleled biodiversity and significant ecological, research, educational and tourism values. They say the timber supply analysis falls short of the harvest level reduction needed to manage and protect them. The following points are made:

- of particular concern are antique forests

(where the stand is older than the oldest tree) which are generally cedar-leading. Some may not have experienced a major disturbance for thousands of years, and current climate modeling suggests the ICH zone may become wetter and therefore fire return intervals will likely increase.

- the differing characteristics between hemlock-leading stands and cedar-leading stands are not fully understood, but need to be recognized.
- over 80 percent of forests targeted by industry are cedar-leading and the *Analysis Report* recommends new tenures for the next 50 years; the net effect could be destruction of nearly 70 percent of potential antique forests.
- there is a lack of scientific knowledge about these ecosystems and great potential to discover new species and novel ecosystem functioning (e.g., ongoing study of lichens, which may be indicators of other unique community structures yet to be discovered). Until more is known, including the size and location of antique forests, the precautionary principle must be applied.
- the stands with potentially the greatest biodiversity are also the most productive from a timber perspective. These stands will occur in the THLB and will not be adequately represented outside it.
- it's questionable whether having 19 percent of the forested area older than 250 years is sufficient to represent the wealth of species developed over millennia in these ancient forests. Will these stands be in the best locations for the wildlife that use them?

First Nations Land Use

Evidence on the use of the ICH zone by First Nations is incomplete and contradictory; more research is required regarding the possibility of permanent traditional land use and settlement in this zone.

Species Conversion and Regeneration

Of the 25 submissions that comment on this issue, none express support for the conversion policy (converting cedar-hemlock stands to other species) and offer the following reasons.

- it eliminates the capacity of these forests to maintain current levels of biodiversity, and could be ecologically and economically (due to pest outbreaks) disastrous.
- forest health issues are well-documented in previous attempts to replace cedar and hemlock with other species.
- many plant and animal species will be at risk. For example, ICH forests are a seasonal home to endangered mountain caribou because the old trees provide their most basic food source (arboreal lichens).
- there are huge areas where spruce can be grown productively; the ICH is the only zone in the TSA where cedar can be grown reliably and productively. This is important for biodiversity and also to support the cedar industry.
- more information is needed to allow adaptive management processes.
- the ecological consequences must be better researched and updated guidelines on appropriate species developed.
- harvest levels based on old-growth conversion may mean TSA wood is shut out from the certified wood market.

TRC Cedar Ltd. says the base case assumptions do not reflect their regeneration practices (minimum 40 percent cedar, maximum 40 percent spruce, 20 percent Douglas-fir and pine, based on prior stand composition). The company also says they immediately plant after harvesting so their regeneration delay is less than one year, not three years as in the base case. Two submissions say the use of Douglas-fir has been given too little attention, as it grows very well on well-drained sites, and will be favoured in drier areas as climate warming proceeds.

Wood Quality

Four submissions comment on the issue of wood quality. They all express concern at the loss of old-growth wood, which is desirable and/or necessary for various value-added

products such as furniture and especially musical instruments. Soundboards for string instruments can't be made from wood less than 300 years old and old-growth spruce is particularly prized, according to these submissions.

An individual recommends putting the whole ICH into a long-term rotation strategy that will provide for a sustainable harvest of high quality, old-growth timber, noting that the Robson Valley TSA has planned for some stands in the ICH to be managed on a 240-year rotation.

Forest Health

The following comments are made with regard to forest health issues in the ICH zone:

- GIS (geographic information system) mapping of hemlock looper damage must be implemented. Note that antique stands are relatively resistant to looper damage.
- the belief that harvesting old-growth forests helps maintain forest health is unsubstantiated. These forests are not generally subject to major disturbances and their health revolves around decomposition and nutrient cycling.
- the best approach to managing looper attacks may be to avoid all but the lightest logging, based on the observation that most of the serious infestations occurred downwind from major openings (which allowed warm winds to dry out adjacent stands).

Operability and Land Base

Several submissions comment on factors relating to the operable land base, as follows:

- damaged hemlock-leading stands should be excluded from the THLB, as dead hemlock deteriorates much more quickly than cedar and is almost at the point of non–merchantability.
- about 25 to 30 percent of the AAC under TRC's licence is in areas deemed inoperable by the *Analysis Report* definition. TRC blends conventional and cable harvesting to balance costs and achieve optimum utilization of a shrinking land base.
- different approaches to defining operability for hemlock- and cedar-leading stands are needed, given the condition of the hemlock market.

Post-Harvest Retention

Many submissions comment on the issue of post-harvest retention levels, as they relate to the maintenance of biodiversity in ICH forests. Key points include:

- commend the decision to increase WTP size to 20 percent of cutblock, but say most patches will not be large enough to create interior forest habitat. Edge effects are often found in patch interiors as far as two to three tree lengths.
- TRC Cedar questions the increase to 20 percent, noting the Forest Practices Code requirement of 3.5 percent and Prince George district policy of minimum 10 percent.
- 20 percent retention needs to be tested and validated. Experience in other similar types on the coast suggests that elevated levels of post-harvest retention are one of the key tools for improving biodiversity management and public acceptance.

Protection Measures for the ICH

Several submissions comment on how the forests of the ICH zone should be protected, as follows:

- old-growth cedar stands in the Driscoll and Slim Creek areas should either be protected (as protected areas or ecological reserves) or established as Old Growth Management Areas (OGMAs) or ESAs. These stands need to be protected from harvesting to serve as a storehouse of knowledge and species preservation. Only 2000 hectares of cedar-leading stands are protected in the TSA.
- the entire ICH zone in the Robson Valley has the highest value for conservation and the intact old-growth stands should be

recognized as "high conservation value forests." Antique stands should be protected through OGMAs or ecological reserves (see Fraser Headwaters Proposed Conservation Plan).
- why are areas of severe/moderate looper attack excluded from consideration as OGMAs? Understand reductions were made for OMGAs in revised base case.

Net Volume Estimates

Several submissions question the net volume harvested from cedar-hemlock forests:
- there's a discrepancy between the volume used in the analysis (400 cubic metres/hectare) and what TRC Cedar says they recover (270-290 cubic metres/hectare).
- 40 percent of stand volumes is not being used; trees would be better left standing to provide wildlife habitat, nurse logs and coarse woody debris.
- current volume-based licence is based on assumption of 400 cubic metres/hectare. This will put pressure on the land base if actual yield is lower.

Other Comments

Most submissions comment on factors or issues other than those specifically covered by Timber Supply Review documents. These comments are summarized in this section.

Timber Supply Review Process

Comments on the process include the following:
- the *Data Package* is not quantitative which makes it difficult to provide meaningful feedback. Also the time frame over the holiday season made detailed analysis difficult.
- the distinction between the "forest" and the THLB should be emphasized; all management objectives should be applied against the entire land base or the productive forest land base, not the THLB.
- the chief forester's interpretation of section 8(b) is unduly restrictive and must be broadened to address environmental, social and cultural implications of alternative rates of timber harvesting.
- Hemlock-leading stands and cedar-leading stands have different ecologies and markets and need to be analyzed separately.
- pleased with revised base case assumptions and that stand conversion is no longer the approved procedure.
- the assumption that management practices will continue unchanged is almost certainly not true and simply justifies the status quo.
- no attempt was made to model possible expansion of the value-added sector or to model wood qualities under various management regimes.
- the analysis should be based on management units (e.g., watersheds) that are consistent with the operational areas of licensees; an AAC per unit should be set.
- does the timber supply model reflect what is occurring on the ground, specifically in relation to objectives that may not be achievable given the necessity to address the MPB epidemic (e.g., biodiversity reserves, green-up, size of clearcuts)?
- harvesting priority for the next one to two decades will be in younger stands infested with MPB or spruce bark beetle; perhaps the older balsam-leading stands should be modeled to drop out of the timber supply at some point, since they may not be harvestable by the time tenure holders get to them.

Management Practices

Many submissions comment on management practices and objectives, particularly for the ICH zone. Key points include:
- there is a need to differentiate between appropriate management in hemlock–leading vs. cedar-leading stands (the latter have a longer rotation and are less affected by the hemlock looper).
- direction is needed to increase the use of cedar regeneration in both ICH silvicultural prescriptions and in measurable

reforestation outcomes, consistent with the approved Prince George LRMP.
- biodiversity should be the acknowledged objective in the ICH. Harvesting only merchantable trees, leaving 30 to 50 percent retention and minimizing understory disturbance, will create multi-story and multi-species communities that will benefit the biological community, as well as recreation and visual quality.
- all unprotected old-growth ICH stands should be managed for extended rotations, so that forest products currently available will continue to be available.
- a policy is needed requiring a survey by competent persons to assess antiqueness prior to issuance of a cutting permit in older ICH stands.

In addition, an individual recommends shortening the Forest Practices Code to 400 pages, harvesting wherever there is a bug infestation, and not worrying about tearing up the land as this allows oxygen to get at seedling roots for faster growth.

Tenures

Sixteen submissions comment on the issue of tenures in the ICH zone. The following recommendations are made:
- no further tenures be granted (in particular the outstanding 30,000 cubic metre licence), nor extensions to existing licence(s).
- tenures must be short term (rather than 50 years).
- tenures must be flexible to allow research and adaptive management processes to occur.

In addition TRC Cedar makes the following comments:
- they have successfully completed the five year licence (for 40,000 cubic metres/year) issued in 1996, and have begun harvesting under the new 15-year licence (80,000 cubic metres/year) issued in 2000.
- clear direction is needed regarding several looper-related issues under the current licence, as their planning is being restricted due to these uncertainties.
- what is the status of the 30,000 cubic metre licence? It poses concern for timber supply sustainability and affects TRC's ability to have its operations certified by the Forest Stewardship Council. The company sees certification as critically important and has been working toward it for two years.
- the 30,000 cubic metres should be used to assist in managing the beetle epidemic, be revoked for non-performance, or restricted to severe looper attack stands only.

The Tri-Community Group notes that the present AAC is still not being fully utilized to process MPB timber, based on their analysis of regional milling capacity. They therefore see no benefit in awarding new forest licences in green-attacked timber at this time, but ask the chief forester to revisit this issue if circumstances change.

Canadian Forest Products Ltd. (Canfor) says that any AAC increase as a result of MPB control efforts should be allocated to non–replaceable forest licences (maximum 10 years) that prohibit the construction of increased milling capacity.

Harvest Levels and Partitions

Ainsworth Lumber requests that a deciduous–leading partition be established.

The major licensees say they agree with the *Analysis Report* that the TSA has a robust supply of mature, merchantable growing stock and recommend consideration of an AAC increase now or in the future, especially if warranted to counter beetle epidemics. They identify several upward pressures on the base case, including the use of improved seed, the underestimation of future plantation productivity, the use of ESAs and the use of the provincial OAF1 factor. They say the downward pressure indicated by the inventory

overestimate in spruce stands is unknown and minimal.

Canfor recommends that the AAC be increased by 1,000,000 cubic metres for the next 10-year period. The following reasons are offered:

- the base case forecast presents a very conservative assessment of timber growth and yield because it does not incorporate ecosystem-based site indices, genetic gains, and OGSI adjustments.
- the base case relies heavily on harvesting current mature volumes for the next 170 years; this is not optimal as damaging agents (e.g., bark beetles) and normal stand deterioration due to aging will reduce the mature volumes available over that time period.
- moving toward managed stand scenarios on an accelerated schedule will minimize future expenditures required to rehabilitate dead or damaged stands.

Canfor further recommends that the AAC increase be directed into timber stands that:

- are currently infested with bark beetles.
- contain insect-damaged timber that is still usable as sawlogs.
- are comprised of older age class stands that are vulnerable to normal stand deterioration and/or attack by damaging agents.

The Tri-Community Group expresses concern about the timber supply impacts of efforts to control the pine beetle and spruce bark beetle attacks. The Group says the shifting of AAC between forest districts and the consideration of a temporary uplift are important issues.

After examining mill capacity and related factors, the Tri-Community Group says no increase in the AAC for the MPB epidemic should be considered until it can be demonstrated that all the timber is being processed by mills in the TSA. The Group estimates there is currently a net mill capacity of 8.6 million cubic metres suitable for processing MPB wood, and only when this level is reached should an AAC increase to manage the epidemic be considered.

The Tri-Community Group also expresses concern about the utilization of dead standing timber that is part of the AAC. The Group notes that the magnitude of this volume and the actual usable life of dead standing timber are two unknowns (although current estimates for the latter are three to five years). The Group asks the chief forester for a commitment to revisit the possible partitioning of the AAC (and possibly an increase in the AAC) to encourage harvesting of the dead timber after it's no longer suitable for sawlogs.

An individual submission expresses concern about long-term timber supply and employment opportunities, and challenges the Ministry of Forests to demonstrate the cutblocks intended for harvest in the year 2171. This individual says it is not possible to calculate an AAC based on a forest inventory that has been depleted severely due to the beetle epidemic, without cutting into "capital" instead of "profit."

Twenty-one submissions comment on the AAC for cedar-hemlock forests and suggest further reductions in the AAC. Key points include:

- commend decision to reduce the AAC in the ICH but suggest further reduction because of lack of mapping of looper damage, lack of information about the extent and functioning of antique forests, and the need for further research to maintain the biodiversity in these forests.
- remove old-growth forests from harvesting; they are an investment in the future.
- why is there a 50-year cut set at 100,000 cubic metres when 85,000 cubic metres is considered sustainable? The AAC should be set at the long range sustainable yield, or even lower.
- the harvest level is justified by recovery of

looper-damaged stands, yet harvesting is aimed at cedar-leading stands. Most salvageable wood has already been harvested.

- an AAC at 100,000 cubic metres misrepresents the differences between past and present tenure sizes. For example, there are currently two 10-year tenures totaling 110,000 cubic metres/year.
- harvesting at the sustainable rate of 30,000 cubic metres/year with 30 to 50 percent retention will closely mimic natural disturbances while still remaining operationally economic.

Two submissions express support for the proposed harvest level of 110,000 cubic metres/year in the ICH zone. A consultant says this is an appropriate level at present to maintain a balance between economic opportunities and future management options that may include a greater conservation emphasis.

An individual says all logging should be discontinued in the ICH until far more is known (e.g., the impact of logging on biodiversity, wild fish stocks, weather patterns, wildlife migration, adjacent farms, Canada's role as a carbon sink).

TRC Cedar says establishing a sustainable harvest level of 50,000 cubic metres/year in the ICH will not be sufficient for their operations. The company also says maintaining 110,000 cubic metres for 30 years will mean long-term viability will be sacrificed for short-term commitments.

One submission suggests a partition of cedar and hemlock. Another suggests a separate AAC for light to moderately-damaged hemlock, and otherwise hemlock should comprise a portion of the AAC when markets are available. This submission says the sustainable level of harvest for hemlock is roughly half that of cedar.

MPB Public Discussion Paper

Operable Land Base

The Prince George Timber Supply Working Group says Supply Block A should continue to contribute volume to the AAC until the impacts of both MPB and spruce bark beetle epidemics in this TSA and adjoining ones are known.

Forest Management Strategy

Several submissions comment on the potential for an AAC increase to result in increased harvesting of non-infested trees and they say the increase must be targeted to beetle wood. The Prince George Timber Supply Working Group says all of the increase must be targeted at minimizing the spread of both MPB and spruce bark beetles, and salvaging value from beetle-attacked timber throughout the TSA. The Vanderhoof District Chamber of Commerce says a strategic plan is needed that specifies the temporary nature of the increase and directs harvesting to MPB stands only. Dunkley Lumber Ltd. says new licences should focus on control harvesting first and salvage harvesting second.

An individual submission recommends harvesting a half-kilometre-wide swath of green trees around the edge of dead trees. This individual says cutting already brown trees will do nothing to control the spread of the insect, and these trees should be left standing to provide other ecological values (nesting sites, shade, coarse woody debris, etc.). Another individual says all the wood possible should be salvaged, as it will be pulp in three years.

One submission says everything possible must be done to control this epidemic, including harvesting infected trees in park reserves, while another submission says there should be no increase in logging in parks or protected areas, except for certain small operations (e.g., salvage heli-logging).

Dunkley Lumber Ltd. expresses concern with the statement in the *Public Discussion*

Paper that the MPB and spruce beetle are being managed within current harvest levels in the Prince George and Fort St. James forest districts. The company says they are seeing huge increases as the wave of beetles travels from west to east (confirmed by the map issued by the Beetle Task Force). Dunkley Lumber recommends that the harvest increase should be directed towards the "front" of the epidemic as needed and (assuming an increase of three million cubic metres per year), at least one million cubic metres should be directed into the Prince George and Fort St. James districts.

Other comments about the forest management strategy include the following:

- the role of the Beetle Coordinator should be changed from facilitator to that of a statutory decision-maker.
- the *Public Discussion Paper* is based on "could be" and "may be" and such radical action as the proposed AAC increase should be based on something more certain. Several unknowns about impacts and future conditions are identified.
- management practices should ensure that the same problems do not occur in the next rotation (i.e., avoid single species, even–aged stands).
- be cautious with the use of MSMA pesticide treatments.
- instead of increasing the AAC, shift the harvest from northern and non-epidemic areas of the TSA to the epidemic area, or shift AAC from other districts (e.g., Slocan can cut less in Mackenzie Forest District and more in Vanderhoof, and then trade it back). "Exchange of fibre agreements" can be used to ensure long-term community stability.
- beetle management through logging only works if the objective is to increase the beetle population. The only solution now may be an aggressive burn program.
- a volume increase needs to be part of an overall beetle management strategy. Canfor provides details on such a strategy's contents and goals.
- roads should be built for the long term and access maintained for future management in an economic manner. Public safety on both local highways and arterial forest roads must be addressed.

CM Aquatec Infrared Service Ltd. proposes the use of new infrared technology that can identify where the beetles are now and where they are going. This will assist in a planned approach to the harvest, help alleviate some of the environmental concerns and provide a significant cost saving, according to the company.

Lakeland Mills says the *Public Discussion Paper* has limited discussion on the spruce bark beetle. The company says the amount of attack has been increasing rapidly during the past few years and its extent and impact should be given equal consideration to the MPB.

Environmental Implications

Old Growth Management

An individual submission suggests that, in consideration for adding millions of cubic metres to the AAC in threatened pine forests, priority be given to implementing Old Growth Management Areas in the ICH zone in the Rocky Mountain Trench.

Riparian Management

An individual asks if buffers will be left along creeks, rivers and lakes.

Fisheries and Oceans Canada (DFO) expresses concern with the protection of fish and fish habitat in the proposed management strategy, saying it must include an emphasis on ecosystem integrity and function at the watershed scale to protect fisheries and water resources. DFO notes the ecological importance of bark beetle outbreaks and says management activities should not be based on the assumption that the current outbreak is an ecological disaster in need of mitigation. DFO also affirms that the federal Fisheries Act

continues to apply to forest development operations in BC.

DFO notes the following specific concerns regarding MPB management:

- changes to peak streamflows, landslide activity and surface erosion risk.
- the need to avoid the costs of watershed restoration plans.
- the application of management direction from LRMPs, which specifically address riparian and aquatic protection.
- extending the period of harvesting creates a high risk of environmental impact.
- the reliability of distinguishing red from green attack, and the removal of green timber through indiscriminate harvesting.

DFO urges application of the precautionary principle, and makes specific recommendations including:

- watershed assessments for affected watersheds.
- provision of adequate riparian reserve and management zones, including provisions beyond those of the Forest Practices Code (for small streams).
- establishment of indicator basins.
- participation by academics and community groups in the development and implementation of an effective monitoring system.

Wildlife

One individual asks how these clearcuts will affect wildlife. Another notes the impact on many species of removing the majority of mature pine but says the increase in roads will have the greatest effect on moose and deer populations. This individual recommends:

- all logging access roads in the southern part of the Vanderhoof Forest District be closed to all-terrain vehicle use for hunting until all harvested areas have been reforested.
- an annual review of the AAC.
- spruce and deciduous trees not be harvested or damaged, to soften the impact on bird species and some furbearers.

The submission from the Ministry of Water, Land and Air Protection (MWLAP) notes that impacts of large-scale salvage for insect control were identified in a report by John Stadt, the forest ecosystem specialist in the Lakes Forest District. These impacts include:

- reduced coarse woody debris, affecting species that depend on it and predators that rely on them.
- loss of habitat for woodpeckers and other cavity-nesting birds.
- loss of older habitats, which will favour some species but be detrimental to others.
- increases in peak streamflow and storm flow volumes within streams.
- increased road development (source of erosion; habitat fragmentation; altered predator-prey dynamics; improved access to hunters and poachers).

MWLAP makes several recommendations to limit the impacts of extensive salvage logging on wildlife and other resources, including:

- assign harvest priority to active infestations.
- attempt to leave non-susceptible and unattacked trees, at both the stand and landscape level.
- where possible, consider retaining stand level structural elements (e.g., wildlife tree patches).
- aggressive deactivation of new access to previously unroaded areas.
- develop a carefully planned program of harvesting that considers impacts to landscape and stand level environmental values, as well as economic return and community stability.

First Nations

An individual submission says First Nations' rights have to be protected, and in particular the good trees on their traplines and territories must be left. These areas have been passed down from generation to generation for thousands of years, accompanied by strict laws, according to this individual.

Canfor suggests a portion of the volume increase should be targeted to tenures for First Nations. A First Nations forestry consultant agrees, saying part of the increased harvest should be awarded to aboriginal forest enterprises, as this would increase stability in the aboriginal community and increase economic well-being. This submission says aboriginal businessmen can help to sell excess logs that can't be milled locally, by using aboriginal mills in the USA that need raw logs.

The Burns Lake and District Community Economic Development Association encourages the Ministry of Forests to work closely with First Nations groups to ensure they have a meaningful role in the fight against this epidemic.

Tanizul Timber Ltd. says all implications of an increase in harvesting must be considered, including recent Court decisions regarding consultation with First Nations. The company also points to the need to have a marketing strategy that creates a level playing field for all tenure holders with no subsidies. Tanizul Timber says TFL 42 has an increasing beetle problem with dwindling markets, and is paying 60 to 70 per cent of its revenue for stumpage charges.

Community Implications

A submission from two directors of the Regional District of Bulkley-Nechako maintains the movement of MPB wood in the Lakes Forest District must occur via three identified routes, in order to attain community stability in Burns Lake, Fraser Lake, Houston and other communities to the west. This submission says this approach to transportation will enable communities in the Prince George TSA to focus on the harvesting and control of MPB volumes in their districts.

The Burns Lake and District Community Economic Development Association says a state of emergency must be declared to provide financial aid to assist communities to deal with the impact of this epidemic, to streamline regulations, etc. The association also says the affected communities must be supported in preparing for the AAC drop at the end of the epidemic, in order to assure economic stability.

Economic Implications

An individual trapper says that increasing the harvest directly affects the ability of registered trappers to maintain their income from trapping, and they want to be compensated just as they are by BC Hydro and other tenure holders. This individual says all stakeholders in the forest resource, including trappers, must be considered.

Three submissions express the opinion that the proposed harvest increase may protect the timber industry but will negatively affect activities that depend on wilderness or undisturbed areas, including tourism, recreation, guide-outfitting, trapping and fishing. One submission notes that unaltered, beetle-killed stands are acceptable to backcountry tourists as part of the wilderness experience, while an abundance of managed forests are not. Two submissions note that the *Public Discussion Paper* does not even mention any other resource users.

Several submissions comment on the issue of milling capacity. The following opinions are expressed:

- the additional harvest may send some timber away from local mills for the short term, but if nothing is done, there will be little economic benefit in the future.
- existing processing facilities must be fully utilized to process timber from the increase before new facilities are awarded timber.
- adding shifts to the closest milling facility is preferable to trucking logs extra distances.
- guarantees are needed that there'll be adequate fibre to maintain current operations once the epidemic has been dealt with, including agreements on "exchange of fibre."

Prince George Timber Supply Area

The Tri-Community Committee (including the mayors of Fraser Lake, Vanderhoof and Fort St. James) provides information from two recent reports they developed. The first report deals with the mill capacity available for processing MPB-killed timber and says that 8.6 million cubic metres could be dedicated to MPB timber. However, the committee notes its concern that a mid-winter evaluation of harvesting plans seemed to indicate that only about two-thirds of that potential would be used to process MPB timber in the 2001/02 logging season. A coordinated strategic action plan for the entire epidemic areas is needed, according to the committee, and details on suggested components of the plan are provided.

The Tri-Community Committee says their second report, which looked at the potential future inventory of dead standing timber, concludes that MPB population growth could be held in check with normal mill capacity levels by optimally utilizing the TSA's milling capacity. The committee notes that the Prince George District has about 60 per cent of the milling capacity suitable for MPB timber and says a temporary AAC increase that allowed those mills to continue milling green wood, while large volumes of MPB timber are put up for harvest in the Vanderhoof Forest District, would be counterproductive.

The issue of timber pricing is raised in several submissions. Canfor recommends that any volume increase in the TSA should be used to facilitate the movement to a Market Pricing System. Aspen Ridge Consulting asks if other tenure rates will be tied to the Small Business Program rate, noting that otherwise woodlots and licences to cut (such as agricultural leases) are at a disadvantage when selling their wood and these tenures will become beetle-breeding sites if this discrepancy is not rectified.

L&M Lumber says that any changes to the timber pricing system that are implemented for this increase (such as inter-TSA hauling differentials) must be reciprocal for licensees forced to harvest timber outside the district or TSA when the epidemic is over.

Market Implications

Many submissions comment on how market conditions and other related factors (such as the Softwood Lumber Agreement dispute) will affect or be affected by the proposed increase in harvest. These comments include:

- an increase in lumber exports to the USA will result in financial sanctions that will force mills to either curtail or close operations, given the softwood lumber dispute. There is no other place to sell the lumber.
- an increased AAC for the sake of volume is a poor marketing plan when there is no market. It's foolish to increase the wood supply to the marketplace without a clear and certain demand for more lumber.
- log storage options (both land and water) must be explored. Lumber can be safely stored for years.
- three submissions say raw log export regulations must be relaxed and free trade in logs allowed, while one submission expresses the opinion that the majority of the public does not support raw log exports.
- if log exports are permitted, government must ensure the Americans accept infested timber as well as healthy, non-infested trees so all the poor quality logs are not left for Canadian manufacturers.
- an AAC increase will compound the existing log market situation. Local mills are benefiting from the oversupply situation and land-based tenures (e.g., woodlots) are being squeezed out of the log market. A level playing field for all tenure holders must be established.

Harvest Levels

Almost all of the submissions comment on the proposed AAC increase.

Eight submissions express doubt about or opposition to the increase, citing the following

concerns:

- the current AAC is not sustainable and increasing it is a major concern.
- consider other options, such as temporarily reducing the cut in TSAs with a lower harvesting priority, and have licensees from those TSAs move their harvest to the Prince George TSA, with the government covering the extra transportation costs.
- increasing the AAC doesn't guarantee an increased harvest, due to market factors.
- unless the rate of logging is immediately reduced, sustainable ecosystems will be further threatened and mills will close due to wood shortages.
- better utilization, more manufacturing efficiency, more trees on the open market, and directing harvesting resources to the beetle areas make an increase unnecessary.
- an increase will negatively impact economic input from activities that rely on wilderness or undisturbed areas. It's important to diversify the economy.
- the Vanderhoof LRMP working group was not comfortable with an AAC of 1.9 million cubic metres/year (as an alternative to the 1995 AAC of 1.7 million cubic metres), due to concerns about sustainability.

Sixteen submissions express support, sometimes qualified, for a temporary AAC increase. The following points are made:

- it's the only way out of a terrible situation. If drastic measures are not taken now, there'll be very few resources left for the future.
- the AAC must be increased by three million cubic metres per year, as one million cubic metres will not provide enough additional harvesting power to have an impact.
- an increase of three million cubic metres/year would exceed milling capacity, put too much pressure on other forest values, and open the door to raw log exports.
- the increase must be targeted to minimizing the spread of beetles and salvaging value from beetle-attacked stands.
- the full MPB timber milling capacity of the TSA must be used.
- prompt reforestation will ensure forest values are sustained.
- the AAC increase will increase current and future employment.
- don't overplay the extent of the disaster; a drop of only 2.3 per cent in the AAC after 35 years is projected if there's no increase for MPB harvesting now.
- the increase must not adversely affect the environment or social values identified in the TSA's three LRMPs.
- too large and/or sudden an increase could adversely affect licensees' certification efforts.
- the long-term viability of the industry is a major concern. Every effort should be made to return licensees to current harvest levels after the epidemic is controlled.
- the same percentage increase applied to the TSA should also be applied to woodlots with an existing beetle problem and a high proportion of pine trees older than 60 years.

Several submissions comment that this temporary increase must be regularly and frequently reviewed, and rolled back as soon as the epidemic is under control.

Allocation and Tenures

Dunkley Lumber Ltd. says any AAC increase must be awarded through competition structured to maximize the opportunity to participate in the resulting economic activity. For example, there should be a good distribution of licence size and location within each of the three districts, using non–replaceable forest licences and some short-term timber sales.

The submission from the Nechako Lodge questions if the Vanderhoof district will take the largest allocation and how such a massive increase will impact sustainability.

L&M Lumber recommends that meetings be held with affected stakeholders before the

increase is allocated to ensure there is consensus about the planned distribution and that the increase is fully directed to the current beetle epidemic. The company notes specific concerns about their small profile pine licence, such as the fact this timber is less susceptible to infestation and could be left surrounded by large clearcuts. This would mean islands of small profile timber would not be available for harvest until green-up has been achieved around them, according to the company.

Canfor makes several recommendations regarding apportionment, including the following:

- the potential increased harvest forecasted by the Vanderhoof Innovative Forestry Practices Agreement (IFPA) should be allocated pro-rata to the IFPA participants prior to other additional volume being offered or allocated.
- only non-replaceable licences should be allocated with one to two-year terms.
- maximum flexibility should be maintained, so harvesting can be targeted to areas of highest priority.
- operating areas where increased volumes will be harvested need to be jointly agreed on by the Ministry of Forests and licensees, in order to not undermine certification and sustainable forest management efforts.
- any volume increase should be used to facilitate the move to a market pricing system.

Appendix 1 — List of submissions received by the Prince George, Vanderhoof and Fort St. James Forest Districts

Submissions received on the Data Package

First Nations
Tl'azt'en Nation

Government agencies
BC Environment

Forest industry
Plateau Forest Products Ltd.
Prince George Timber Supply Working Group

Local government
District of Fort St. James

Interest groups
Fraser Headwaters Alliance

General public
Four individual submissions

Submissions received on the Timber Supply Analysis Report

First Nations
Carrier Sekani Tribal Council

Local government
Regional District of Kitimat-Stikine
Tri-Community Group (Regional Community Economic Development Management Committee) (Dec. 5, 2001, and Jan. 18, 2002)

Forest industry
Ainsworth Lumber Co. (submitted by Timberline)
Prince George Timber Supply Working Group (major licensees)
TRC Cedar Ltd.
Canadian Forest Products Ltd.

Consultants
Enlichened Consulting
DR Estey Engineering
Silvifauna Research

Interest groups
Dome Creek Forest Information Committee (May 27 and Nov. 30, 2001)
Fraser Headwaters Alliance
Inland Rainforest Research Initiative (Dec. 3, 2001, and Feb. 22, 2002)
Lands Council
Prince George Naturalists Club
Youth Round Table on the Environment

General public
28 individual submissions

Submissions received on the MPB Public Discussion Paper

Local government
Regional District of Bulkley-Nechako
Tri-Community Committee (Regional Community Economic Development Management Committee)

Government agencies
Fisheries and Oceans Canada
Ministry of Water, Land and Air Protection

Forest industry
Canadian Forest Products Ltd.
Dunkley Lumber Ltd.
L&M Lumber Ltd.
Lakeland Mills Ltd.
Northern Forest Products Association
Prince George Timber Supply Working Group
Tanizul Timber Ltd.

Consultants
Aspen Ridge Consulting
CM Aquatec Infrared Service Ltd.
Tsal' Ts'ul Forest Services

Interest groups
Burns Lake and District Community Economic Development Association
Vanderhoof District Chamber of Commerce

General public
22 individual submissions